



# Gap Clearing Kicker in MI

- Gap Clearing Kicker Construction off project (~\$3.9M, includes tail bumper system)
  - There is a general concern that if we don't put the gap clearing kicker in the MI ASAP (and thus the MI-39 building), the 100 region may be so activated that doing the NOvA upgrades is not possible unless we turn beam down considerably for a long period of time before the shutdown.
  - It is thought that the gap clearing kicker could be ready perhaps 6-12 mos. earlier than in the NOvA schedule (presently 4/11) if it is to be used in the MI to clean up losses in the 100 region
    - Chris Jensen & company will look into this when Chris returns in the next week
  - This could allow perhaps ~6 mos. of operating the gap clearing kicker in MI before our long shutdown (10/10) - a huge help to dose rates in the 100 region.
  - This would mean WE HAVE TO GET THE MI-39 PENETRATION WORK DONE NEXT YEAR or we have no building to put the kicker in.
  - Of course there is the large general concern of this getting funded if it is off project as without the gap clearing kicker in the recycler, there is no NOvA 700 KW beam.



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As a result of all this:

1) Dixon is looking to proceed with the MINU work by splitting it into two shutdowns worth - one for each building/penetration with MI-39 happening first.

- Will increase the cost of the overall project

2) Most likely Dixon's work will require at least one Lambertson to be removed from the tunnel and thus his work will take ~2-4 weeks longer to do (10-12 weeks instead of 8) to adjust for this.

- Removal due to two possible issues: concerns with damaging Lambertson if it remains installed and concerns with the radiation levels if it is too radioactive

3) The collimators (along with other improvements) being installed this shutdown will reduce the 400 region radiation levels considerably – so may not have to remove components due to radiation issues for the civil work in 2008?

4) We really need to get the MI-39 work to happen in CY08 as this will then address the increasing radiation levels in the 100 region and nothing else can. A year delay in this really hurts.